



Enhancing Canada's Mineral Industry Competitiveness: 2020 Pre-Budget Submission Prospectors & Developers Association of Canada (PDAC)

Recommendation 1:

Given that the mineral industry supplies minerals and metals that will enable a low carbon future, government should:

- Create a mineral sector-specific funding program or tax incentive to encourage increased exploration specifically for minerals and metals that will enable the development of clean technologies.
- Provide funding targeted specifically towards innovation for exploration in areas such as: low emission and renewable energy technologies that reduce GHG emissions, increasing the reuse of water, and waste reduction.
- Provide a dedicated funding stream to expedite the development of critical energy infrastructure such as small-scale nuclear reactors in northern and remote regions.

Recommendation 2:

Support the mineral industry's competitiveness in northern and remote regions by:

- Addressing the infrastructure deficit through strategic, large-scale investments in critical transportation and energy infrastructure
- Ensuring that any new carbon price regime is revenue neutral, protects emissions intensive and trade-exposed (EITE) sectors, and addresses the unique challenges faced by remote and northern regions – including a fiscal support mechanism for mineral exploration projects that presently have no alternative to fossil fuels.

Recommendation 3:

Support efforts to enhance the participation of Indigenous peoples in the mineral sector through:

- Foundational investments that contribute to improved socioeconomic outcomes for Indigenous communities.
- Targeted funds towards capacity building for skills and job training, entrepreneurship, economic development, and consultation capacity.

Recommendation 4:

Support geoscience mapping and innovation by:

- Continuing to invest in the collection and dissemination of public geoscience data that drives mineral exploration, particularly in the north, and renewing the Geo-mapping for Energy and Minerals (GEM) and the Targeted Geoscience Initiative (TGI) programs.
- Providing funding mechanisms and incentives to encourage the development, testing and adoption of innovative technologies and processes specifically for mineral exploration.

Recommendation 5: Create a federal funding mechanism to help provincial and territorial governments undertake comprehensive mineral resource assessments, based on geoscientific studies, in order to understand and incorporate the value of mineral potential into land management decisions.



CANADA'S MINERAL INDUSTRY — ECONOMIC AND SOCIAL CONTRIBUTIONS

Canada is a mineral exploration and mining nation. The country is rich in mineral resources and has been a world leader in the discovery, production and processing of minerals and metals needed to sustain modern society and improve the quality of life of the world's growing middle-class, and central to enabling the transition to a lower carbon economy. Canada's mineral industry employs more than 630,000 workers, contributes more than 5% to the GDP (\$97 billion) and accounted for 19% of total domestic exports in 2017. The sector is also the largest private-sector industrial employer of Indigenous peoples in Canada, on a proportional basis, and a key partner of Indigenous businesses.

Canada is especially renowned for its mineral exploration expertise. Junior exploration companies — small, entrepreneurial companies with limited budgets and timelines — undertake the early stages of the mineral development cycle. In Canada, 70% of discoveries over the last 10 years were made by junior companies.

CANADA'S MINERAL INDUSTRY COMPETITIVENESS — SIGNS OF DECLINE

Canada faces strong global competition for mineral industry investment and is declining in its attractiveness as a destination for investment. The domestic share of mineral exploration investment has declined by nearly one-third over the last decade, relative to the rest of the world. Over the past five years, Canada has lost ranking for seven out of sixteen commodities for which it had been a top-five producer. Other indicators of Canada's waning mineral industry competitiveness include increasing discovery costs, protracted timelines to move discoveries into production and declining metals reserves.

RECOMMENDATIONS FOR BUDGET 2020

PDAC accentuates the critical need to address Canada's waning mineral investment. We offer recommendations focused on enhancing Canada's mineral industry competitiveness to ensure that the sector can continue to responsibly explore for and mine the minerals and metals that underpin all of modern life and emerging technologies that make Canada's mineral sector foundational to the transition to a low carbon future.

1. Support the Mineral Sector's Essential Role in Enabling a Low Carbon Future

Government support is needed by exploration companies to enhance efforts to reduce impacts and emissions while increasing the rate of discoveries for the minerals and metals that will enable a low carbon future.

Canada's mineral exploration and mining industry is committed to improving environmental performance and reducing greenhouse gas (GHG) emissions. The mineral sector provides the minerals and metals that are essential to the items Canadians use every day, and is central to meeting Canada's climate change goals. Minerals and metals are required for the technologies and materials that will enable clean growth, particularly in the transportation and energy sectors. For example, clean energy technologies such as wind turbines, solar cells and high density batteries require a combination of base metals, copper, nickel, cobalt and rare earth elements for their development. Currently, Canada's climate goals cannot be met with present discovery rates of mineral resources.



The mineral sector has the potential to both promote economic development and contribute to reducing the impacts of climate change. In addition to being a resource rich country, Canada has the additional advantage of being regarded as a reliable supplier of responsibly sourced minerals due to our longstanding record of sustainable mineral development. In order for Canada to seize the opportunity to be the supplier of choice for other markets, government support is needed. Mineral exploration companies – small businesses operating on limited risk capital – need fiscal support to increase the exploration for minerals and metals that will enable a lower carbon future and also for the R&D and adoption of innovative techniques to reduce impacts and emissions.

Recommendation: Given that the mineral industry supplies minerals and metals that will enable a low carbon future, PDAC recommends that government:

- Create a mineral sector-specific funding program or tax incentive to encourage increased exploration specifically for minerals and metals that will enable the development of clean technologies.
- Provide funding targeted specifically towards innovation for exploration in areas such as: low emission and renewable energy technologies that reduce GHG emissions, increasing the reuse of water, and waste reduction.
- Provide a dedicated funding stream to expedite the development of critical energy infrastructure such as small-scale nuclear reactors in northern and remote regions.

2. Enhancing Mineral Industry Competitiveness in Canada's North

Challenges related to the unique circumstances and resulting high costs of operating in remote and northern Canada must be addressed to support mineral investment and project advancement, and enhance economic development opportunities for northern and Indigenous communities.

The future of Canada's mineral industry lies increasingly in remote and northern regions – areas that exceed 1/3 of Canada and have significant untapped known mineral potential. These regions have unique circumstances – extreme climates, transportation infrastructure deficit, lack of alternative energy sources to diesel – which impact the success of projects in the region. Due to the significant infrastructure deficit, it can cost up to 6 times more to explore and 2-2.5 times more to build new mines in remote regions.

Northern energy costs are compounded by the infrastructure deficit, both in the territories and remote regions of provinces. The extremely limited reach of transmission and distribution infrastructure means mineral exploration and mining projects are mostly off-grid and dependent exclusively on diesel fuel. In addition to the cost of fuel itself, the cost-per-unit of delivered fuel is increased significantly by associated investments essential to supporting the mineral project's energy supply chain. Fuel switching opportunities are limited and are contingent on geographical considerations.

Further, climate change policies must ensure the competitiveness of emissions-intensive and trade-exposed (EITE) sectors and be sensitive to changing economic and geographical realities, particularly in Canada's north. While any successful carbon pricing regime must reduce emissions, it must also ensure that companies remain competitive.



Taken together, these costs – a primary determinant in investment decisions – will adversely impact Canada’s mineral industry competitiveness.

Recommendations: PDAC recommends that the government support the mineral industry’s competitiveness in northern and remote regions by:

- Addressing the infrastructure deficit through strategic, large-scale investments in critical transportation and energy infrastructure
- Ensuring that any new carbon price regime is revenue neutral, protects emissions intensive and trade-exposed (EITE) sectors, and addresses the unique challenges faced by remote and northern regions – including a fiscal support mechanism for mineral exploration projects that presently have no alternative to fossil fuels.

3. Investments in Indigenous Communities to Support Participation in the Mineral Industry

Government investment is critical to enhancing the meaningful participation of Indigenous peoples in the mineral industry.

The mineral sector undertakes efforts to facilitate meaningful participation of Indigenous peoples in the economic opportunities it generates through training, business development and procurement, employment and mutually-beneficial partnerships.

There is great potential to further increase participation by Indigenous peoples in the industry. While the impending mineral sector labour shortage can be filled with the growing Indigenous population that are often in close proximity to projects, many Indigenous communities are faced with various barriers that affect their ability to participate. Investments in Indigenous communities by government to improve their socio-economic position are critical to building capacity and increasing participation to fully maximize opportunities generated by mineral exploration and development.

Recommendations: PDAC recommends the federal government support efforts to enhance the participation of Indigenous peoples in the mineral sector through:

- Foundational investments that contribute to improved socioeconomic outcomes for Indigenous communities.
- Targeted funds towards capacity building for skills and job training, entrepreneurship, economic development, and consultation capacity.

4. Investments in Geoscience and Innovation for the Mineral Sector

Government investment in geoscience and innovation is critical for spurring mineral exploration activity and enhancing industry’s efficiency, productivity and environmental performance.

Government investment in public geoscience has historically played a critical role in attracting exploration activity to Canada and supporting successful discoveries. Improved geological maps and models, geochemical sampling and geophysical surveys help companies conduct more comprehensive desktop research, improve targeting methods and support efforts to reduce the environmental footprint of exploration. This is especially important in the north, which is highly prospective and under-explored.



Innovation is critical to improving efficiency and productivity in the search for new mineral deposits, as well as reducing environmental impacts. While the mineral industry invests millions each year in research and development, Canada underperforms compared to its peers. Investments in innovation are currently directed towards the extractive side of the industry, and support is needed for innovation for exploration. Junior exploration companies, which conduct the bulk of exploration in Canada, operate through risk capital and their capacity to research, develop and implement innovations is extremely constrained.

Recommendations: PDAC recommends that government support geoscience mapping and innovation in the mineral sector by:

- Continuing to invest in the collection and dissemination of public geoscience data that drives mineral exploration, particularly in the north, and renewing the Geo-mapping for Energy and Minerals (GEM) and the Targeted Geoscience Initiative (TGI) programs.
- Providing funding mechanisms or fiscal incentives to encourage the development, testing and adoption of innovative technologies and processes specifically for the mineral exploration industry.

5. Accessing Prospective Lands – Balancing Conservation and Economic Development Goals

Canada's ability to attract mineral investment, increase its rate of discoveries and advance exploration projects to mine development is contingent upon responsible access to prospective land.

Canada's geological endowment is one of our primary competitive advantages over other countries. To capitalize on this advantage, mineral rich areas must be available for exploration. Knowledge of which lands are prospective for minerals and access to these lands profoundly influences investment decisions made by companies and investors.

As governments work in collaboration with Indigenous communities, industry and other parties to meet its protected areas commitments, it is important that mineral potential – based on scientific evaluation of lands – is factored into all land withdrawal decisions. This would help ensure that rights-holders, stakeholders and governments have the full scope of information available to them – for both economic and conservation purposes.

Recommendation: PDAC recommends that the federal government create a funding mechanism to help provincial and territorial governments undertake comprehensive mineral resource assessments, based on geoscientific studies, in order to understand and incorporate the value of mineral potential into land management decisions.